

MANUFACTURING INDUSTRIES

1963-64

NO. 10. COTTON MILLS

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA

AUSTRALIA

EXPLANATORY NOTES

GENERAL. The range of bulletins in this series for 1963-64 is the same as for 1962-63. A complete list of the series is shown inside the back cover.

Where a number of industries are combined in one bulletin, the introductory paragraph on page 3 specifies the industries so included.

CLASSIFICATION OF FACTORIES. For purposes of industry classification, factories are classified according to the nature of their products. Where two or more distinct types of industrial activity are carried on in one establishment, a separate return is obtained, wherever practicable, for each activity, in order to allow classification on this basis. In cases where this is not practicable, factories are classified according to predominant activity. These cases are encountered most frequently in the Metal Trades (e.g. General Engineering firms also producing Agricultural Implements or Stoves, etc.), and to a lesser degree in factories concerned with Skins, Leather, Clothing and Wood products.

Each of the summaries in the "Manufacturing Industries" series relates, generally, to the operations of factories classified to the industry specified. This is also true for figures for individual materials used but figures for individual articles produced represent total recorded production of the articles listed, and include quantities produced, as subsidiary production, in industries otherwise classified.

BASIS OF THE STATISTICS. The scope of the factory statistics is fully explained in the annual Secondary Industries Bulletin, Part I - Factory and Building Operations.

Briefly, a "factory" is defined as an establishment in which four or more persons are employed or where power (other than manual) is used in any manufacturing process. The figures do not include details relating to small establishments not classified for statistical purposes as factories.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, include working proprietors as well as "out-workers", but exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen.

The value of materials used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced and materials used in repairs to plant. In general, it does not include the value of customers' articles or materials repaired, assembled or treated by the factory.

The value of power, fuel, etc. used includes the cost of light, lubricants and water used.

The value of output is the selling value at the factory (exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article) of all goods made during the year. In addition, it includes the value of other work done, such as repair work, assembling and making-up for customers.

The value of production is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced and materials used in repairs to plant (but not depreciation charges). The value of production is the source from which, in addition to wages and salaries, such items as interest, depreciation, profits, taxation, advertising and other sundry charges are met. As details of these other costs of production are not collected, the amounts of profit resulting from factory operations cannot be ascertained from the figures contained herein.

MANUFACTURING INDUSTRIES : AUSTRALIA - 1963-64COTTON MILLS

INTRODUCTION. Statistics showing the development of factories engaged in the treatment of Cotton were not available prior to 1923-24. In that year, provision was made for details relating to the industry to be extracted from those of other textile factories and shown as separate sub-classes of industry. The first available dissection showed that there were 7 factories employing 371 persons engaged in the industry, including 3 establishments in Queensland engaged in the ginning of cotton seed grown in that State.

Some assistance was given in the industry by the provision of a bounty on the production of cotton yarn between the years 1926 and 1932 but this was subsequently replaced by protective customs duty. This assisted in the development of the industry and by 1933-34 there were 24 factories employing 2,012 persons engaged in Cotton spinning and weaving. Eight of these were in New South Wales and sixteen in Victoria. By 1938-39, these had increased to 13 in New South Wales employing 1,716 persons, and 20 in Victoria employing 1,873 persons. In 1939-40, Cotton Mills were established in South Australia and later in Queensland. In 1963-64 there were 85 factories engaged in these four States in the spinning and weaving of cotton, employing 9,869 persons. The details contained in the several tables published in this Summary exclude particulars relating to factories engaged in ginning cotton.

COTTON SPINNING AND WEAVING

1. SUMMARY OF STATISTICS. The following table furnishes a summary of the principal statistics of factories engaged in the spinning and weaving of cotton for the years 1959-60 to 1963-64.

TABLE 1. - COTTON SPINNING AND WEAVING : AUSTRALIA

Year	Factories	Persons Employed	Salaries and Wages Paid	Power, Fuel and Light, etc. Used	Value of Materials etc. Used	Value of Production	Value of Output
	(1)	(2) (a)	(3) (b)	(4) (c)	(5) (d)	(6) (e)	(7) (f)
	No.	No.	£'000	£'000	£'000	£'000	£'000
1959-60	92	9,780	8,853	997	20,631	16,224	37,852
1960-61	88	9,121	8,122	958	18,336	15,169	34,463
1961-62	88	8,980	8,245	1,033	19,161	14,827	35,021
1962-63	88	9,313	8,631	1,134	20,818	16,760	38,712
1963-64	85	9,869	9,594	1,275	23,309	19,097	43,681

- (a) Average over whole year; includes Working Proprietors.
 (b) Excludes amounts drawn by Working Proprietors.
 (c) Includes Water and Lubricating Oil.
 (d) Includes also value of containers, packing, etc., tools replaced and repairs to plant.
 (e) Value of production equals column (7) less total of columns (4) and (5).
 (f) Value, at the factory, of goods produced.

In the following table particulars of the industry are given for each State for the year 1963-64.

TABLE 2. - COTTON SPINNING AND WEAVING : STATES, 1963-64

Particulars *	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.	AUSTRALIA
	No.	No.	No.	No.	No.	No.	No.
Factories	44	36	1	3	..	1	85
Persons Employed							
Males	2,062	1,781	(a)	(a)	..	(a)	4,593
Females	2,399	2,177	(a)	(a)	..	(a)	5,276
TOTAL	4,461	3,958	(a)	(a)	..	(a)	9,869
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Salaries and Wages paid ..	4,198	3,857	(a)	(a)	..	(a)	9,594
Value of -							
Power, Fuel and Light, etc. Used	664	426	(a)	(a)	..	(a)	1,275
Materials, etc. Used ..	10,869	10,194	(a)	(a)	..	(a)	23,309
Production	9,345	7,112	(a)	(a)	..	(a)	19,097
Output	20,878	17,732	(a)	(a)	..	(a)	43,681
Land and Buildings (b) ..	7,564	7,159	(a)	(a)	..	(a)	16,132
Plant and Machinery (b) ..	6,136	4,087	(a)	(a)	..	(a)	12,201
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Rated Horsepower of Engines ordinarily in use ..	22,487	15,627	(a)	(a)	..	(a)	43,752

(a) Not available for publication.

(b) Depreciated or book values at end of year.

* See also footnotes to Table 1 on previous page.

2. AVERAGE SALARIES, OUTPUT AND PRODUCTION. Particulars of the average salaries and wages paid, together with the average values of output and production per person engaged and the ratio of salaries and wages to the value of production are shown in the following table for the years 1959-60 to 1963-64.

TABLE 3. - AVERAGE SALARIES AND WAGES PAID, OUTPUT, ETC. PER EMPLOYEE

AUSTRALIA

Year	Salaries and Wages per Employee (a)	Value of Output per Person Engaged (b)	Value of Production per Person Engaged (b)	Ratio of Salaries and Wages to value of Production
	£	£	£	%
1959-60	907	3,870	1,659	54.57
1960-61	892	3,778	1,663	53.54
1961-62	919	3,900	1,651	55.61
1962-63	927	4,157	1,800	51.50
1963-64	973	4,426	1,935	50.24

(a) Excludes Working Proprietors and amounts drawn by them. (b) Includes Working Proprietors.

3. MATERIALS USED AND ARTICLES PRODUCED. Tables 4, 5 and 6 provide details of principal materials used and articles produced in the Cotton Carding, Spinning and Weaving industries. Whereas materials used figures refer only to those used by factories classified for statistical purposes to the Cotton Carding, Spinning and Weaving industries, articles produced refer to total factory production, regardless of statistical classification. (See Explanatory Notes - Classification of Factories).

In the following table, details are given of the quantities of raw cotton used, and cotton yarn, etc. produced in Australia for the years 1959-60 to 1963-64.

TABLE 4. - COTTON CARDING AND SPINNING
RAW COTTON USED AND YARN, ETC. PRODUCED : AUSTRALIA
(¹000 lb.)

Item	Commodity Code No.	1959-60	1960-61	1961-62	1962-63	1963-64
Raw Cotton used ..	244.15	46,492	42,865	43,395	45,874	54,922
Pure Cotton Yarn produced -						
Weaving ..	364.11	30,042	29,059	29,723	30,094	34,929
Condenser ..	364.19	4,416	4,047	3,726	3,335	4,145
Knitting-Machine ..	364.23	8,790	7,866	7,222	8,940	12,425
Cordage ..	364.27	881	872	1,246	1,902	1,529
Other ..	364.15,31	946	432	556	820	1,404
Total Pure Cotton Yarn	48	45,075	42,276	42,473	45,091	54,432
Mixed Yarn Predominantly Cotton	364.13,25	792	610	872	1,044	967
Cotton Waste ..	244.48	6,280	6,707	6,075	7,052	9,160
	761.32					

The following table shows particulars of the quantities and values of the principal yarns used and woven articles, etc. produced in Australia during the years 1962-63 and 1963-64.

TABLE 5. - COTTON WEAVING : YARN USED AND ARTICLES PRODUCED, AUSTRALIA

Particulars	Commodity Code	1962-63		1963-64	
		Quantity	Value (£'000)	Quantity	Value (£'000)
MATERIALS USED IN COTTON WEAVING					
Cotton Yarn - Pure-Purchased	364.11	'000 lb. 18,037	6,869	'000 lb. 21,759	7,731
Used in own works	364.11	13,068	(a)	13,348	(a)
Mixture	364.13	559	(a)	482	(a)
Mercerized (Pure)	364.35	1,070	844	943	684
ARTICLES PRODUCED IN ALL FACTORIES					
Cotton Sewing Thread -		'000 lb.		'000 lb.	
For Household use ..	368.02.04	106	260	109	271
For Industrial Sewing purposes-					
Light Counts over 18's	368.06	1,595	2,086	1,493	2,151
Heavy Counts 8's-18's ..	368.08	571	324	562	289
Cotton Narrow Fabrics -		'000 cwt.		'000 cwt.	
Cotton and Cotton Mixtures					
Tape ..	378.11	5	604	5	568
Other (of, or predominantly of, cotton) ..	378.16	(b)	400	(b)	425
Towels -		'000 doz.		'000 doz.	
Up to and including 22" wide	373.58,60	244	620	246	641
Over 22" wide ..	373.62,64	485	3,325	580	3,846
Cotton knitted Fabric (incl. tubing) ..	382.04	'000 lb. 3,284	1,774	'000 lb. (c)	(c)
Cotton Piece Goods (d) -		'000 sq.yds.		'000 sq.yds.	
Towelling - for own towels	373.02,03	6,858	(a)	8,262	(a)
for own baby napkins ..	373.04,05	1,026	(a)	1,007	(a)
for other purposes	373.06,07	941	394	981	397
Baby Napkins ..	373.68	'000 doz. 174	343	'000 doz. 202	390
Dress Fabrics and Shirtings	373.38,40	'000 sq.yds. 1,961	377	'000 sq.yds. 2,285	529
	42,44				

For footnotes see page 6.

TABLE 5. - COTTON WEAVING : YARN USED AND ARTICLES PRODUCED, AUSTRALIA - Continued

Particulars	Commodity Code	1962-63		1963-64	
		Quantity	Value (£'000)	Quantity	Value (£'000)
ARTICLES PRODUCED IN ALL FACTORIES					
		'000 sq.yds.		'000 sq.yds.	
Cotton Tweed ..	373.18,20	1,214	562	951	447
Denims, Dungarees, etc.	373.22,24	1,788	606	2,176	805
Canvas and Duck ..	373.10,12	11,511	4,565	12,370	5,210
Drills, Jeans, etc. ..	373.14,16	16,059	4,567	17,866	5,122
Upholstery and Furnishing Fabrics ..	373.46,48	831	404	1,015	422
Other (incl. Calico, Sheetings, etc.) ..	373.30,50	13,725	2,411	16,690	3,045
		'000 lb.		'000 lb.	
Open weave Fabric - Tyre Cord	389.71	117	51	(c)	(c)
Other	373.54	436	187	477	190

(a) Quantity only available. (b) Value only available. (c) Not available for publication. (d) Of, or predominantly of, cotton.

In the next table, the output from all factories of the principal woven cotton products are shown for the years 1959-60 to 1963-64.

TABLE 6. - PRINCIPAL WOVEN COTTON PRODUCTS : ALL FACTORIES

AUSTRALIA

Year	Towels	Towelling	Baby Napkins	Canvas and Duck	Drills, Jeans, etc.	Denims, Dungarees, etc.	Cotton Tweed	Other Close Weave Cotton Piece Goods(a)
	'000 dozen	'000 sq. yds.	'000 dozen	'000 sq. yds.	'000 sq. yds.	'000 sq. yds.	'000 sq. yds.	'000 sq. yds.
1959-60	863	(b)	(b)	10,508	16,218	830	2,152	13,362
1960-61	695	8,987	175	11,115	15,381	867	1,474	14,858
1961-62	763	9,189	195	9,779	16,252	924	1,138	13,586
1962-63	729	8,825	174	11,511	16,059	1,788	1,214	13,725
1963-64	826	10,250	202	12,370	17,866	2,176	951	16,690

(a) Excludes Tyre Cord and other Open Weave Fabrics. (b) Comparable figure not available.

4. EMPLOYMENT. The numbers of persons employed, shown in Tables 1, 2 and 8 have been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table, the factories have been classified for the years 1959-60 to 1963-64 according to the average number employed during the actual period worked.

TABLE 7. - COTTON MILLS : ACCORDING TO PERSONS EMPLOYED :

AUSTRALIA

Number of Persons Employed in each Factory	1959-60		1960-61		1961-62		1962-63		1963-64	
	No. of Fac- tories	No. Em- ployed	No. of Fac- tories	No. Em- ployed	No. of Fac- tories	No. Em- ployed	No. of Fac- tories	No. Em- ployed	No. of Fac- tories	No. Em- ployed
Under 4	10	25	9	24	8	16	6	10	5	7
4	5	20	2	8	1	4	3	12	2	8
5 to 10	11	73	13	93	11	79	7	53	6	48
11 to 20	17	259	15	216	17	269	20	314	20	337
21 to 50	18	627	19	617	21	744	17	582	18	633
51 to 100	6	360	5	288	7	503	12	811	9	603
101 to 200	10	1,394	11	1,604	9	1,238	9	1,227	11	1,532
201 to 300	4	1,037	5	1,419	4	956	5	1,208	5	1,305
301 to 400	5	1,642	3	1,023	4	1,325	2	648	2	686
401 and over	6	4,353	6	3,856	6	3,880	7	4,450	7	4,752
<u>TOTAL</u>	92	9,790	88	9,148	88	9,014	88	9,315	85	9,911
Average Number Employed per Factory	106		104		102		106		117	

Further details of employment are furnished in the two tables which follow. In Table 8, the number of males and females employed are shown for the years 1961-62 to 1963-64 according to the nature of their employment.

TABLE 8. - COTTON MILLS

PERSONS EMPLOYED CLASSIFIED ACCORDING TO OCCUPATIONAL STATUSAUSTRALIA

Occupational Status	Males			Females		
	1961-62	1962-63	1963-64	1961-62	1962-63	1963-64
Working Proprietors ..	10	5	3	1	1	2
Managerial and Clerical Staff including Salaried Managers and Working Proprietors ..	418	418	391	441	453	443
Chemists, Draftsmen and Other Laboratory and Research Staff	52	59	57	62	93	88
Foremen and Overseers, Workers in Factory (Skilled and Unskilled), Carters (excluding Delivery only), Messengers and Persons Working Regularly at Home ..	3,806	3,904	4,142	4,190	4,380	4,743
TOTAL	4,286	4,386	4,593	4,694	4,927	5,276

In the following table the numbers of persons employed in June in the years 1960 to 1964 are shown according to age and sex distribution.

TABLE 9. - COTTON MILLS

PERSONS EMPLOYED ACCORDING TO AGE AND SEXAUSTRALIA

(Excluding Working Proprietors)

Last Payday in June	Under 16 Years	16 to 20 Years	21 Years and over	Total all Ages
MALES				
1960	44	296	4,340	4,680
1961	19	222	3,532	3,773
1962	43	300	4,297	4,640
1963	27	308	3,992	4,327
1964	40	385	4,491	4,916
FEMALES				
1960	99	685	4,494	5,278
1961	47	518	3,472	4,037
1962	145	737	4,126	5,008
1963	99	788	4,072	4,959
1964	81	917	4,570	5,568

5. **POWER EQUIPMENT.** Statistics of the power equipment installed are given in the next table. The details include the rated horsepower of engines ordinarily in use together with those in reserve or idle.

TABLE 10. - COTTON MILLS : TYPES AND RATED HORSEPOWER OF ENGINES, AUSTRALIA

Class of Engine	Rated Horsepower of Engines					
	Ordinarily in Use			In Reserve or Idle		
	1961-62	1962-63	1963-64	1961-62	1962-63	1963-64
Steam - Turbine ..	..	..	..	25	25	..
Internal Combustion -						
Petrol and Other Light Oils	16	16	20	2,201	2,388	2,378
Heavy Oils ..	40	40	40	2,390	1,270	470
Total, Prime Movers	56	56	60	4,616	3,683	2,848
Motors Driven by Electricity -						
Purchased ..	40,536	41,525	43,692	6,495	7,030	4,739
Own Generation ..	..	..	..	38	37	37
Total, Electricity	40,536	41,525	43,692	6,533	7,067	4,776
TOTAL POWER EMPLOYED	40,592	41,581	43,752	11,149	10,750	7,624

6. **POWER, FUEL AND LIGHT, ETC. USED.** Details of the quantities and values of the various items of power, fuel and light, etc. used during the years 1961-62 to 1963-64 are shown in the following table.

TABLE 11. - COTTON MILLS : POWER, FUEL AND LIGHT, ETC. USED, AUSTRALIA

Particulars	Unit of Qty.	Quantity			Value (£)		
		1961-62	1962-63	1963-64	1961-62	1962-63	1963-64
Power, Fuel and Light -							
Coal - Black ..	ton	24,889	21,040	22,338	78,268	65,302	71,393
Brown ..	"	168	287	..	812	1,389	..
Brown Coal Briquettes	"	1,389	3,381	2,188	7,102	17,109	10,903
Coke ..	"	8	27	2	64	153	19
Wood ..	"	..	1	1	..	2	2
Fuel Oil ..	gal.	2,923,186	3,097,541	3,600,958	150,704	150,076	159,380
Electricity ..	-	(a)	(a)	(a)	700,083	787,168	879,027
Gas ..	-	(a)	(a)	(a)	7,546	6,017	6,365
Other (Charcoal, etc.)	-	(a)	(a)	(a)	10,612	16,964	53,050
Water and Lubricating Oil	-	(a)	(a)	(a)	77,982	89,384	94,659
TOTAL		(a)	(a)	(a)	1,033,173	1,133,564	1,274,798

(a) Value only available.

7. **VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY.** Particulars of the book values of premises occupied and plant installed at the 30th June for the years 1959-60 to 1963-64 are shown in the next table. Details of the values of additions and replacements made and depreciation allowed during the same period are also shown. It should be noted that the amounts are those recorded by factories which were operating during each year and that changes in their number, as well as other factors, affect comparison from year to year.

TABLE 12. - COTTON MILLS : VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, AUSTRALIA

(£)

Year	Book Values as at 30th June (a)		Additions and Replacements Made During the Year		Depreciation Allowed During the Year	
	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery
1959-60	9,706,378	9,414,294	764,435	1,043,823	37,695	1,061,147
1960-61	10,391,549	10,105,460	617,342	1,859,063	32,583	971,521
1961-62	12,909,068	10,805,438	200,265	1,772,943	41,319	953,918
1962-63	14,429,917	12,191,142	982,283	3,275,424	45,411	1,148,889
1963-64	16,132,040	12,200,813	269,498	1,251,556	44,281	1,324,005

(a) Includes estimated value of rented premises and machinery.

8. MACHINE EQUIPMENT. Particulars of the principal machine equipment installed in Cotton Mills in Australia at 30th June, 1964 are shown in the general table below.

TABLE 13. - TEXTILE INDUSTRIES : MACHINES INSTALLED (a), AUSTRALIA

Description	Number Installed (a)			
	In Production at any time during June Quarter, 1964		Idle during whole of June Quarter, 1964	
	Machines		Machines	
SECTION 1 - FIBRE PREPARATION -				
Cotton Blowroom Machines - Opening and				
Blending (b)	121		3	
Scutching	61		2	
Woolscouring Machines - incl. Solvent				
Degreasing (i.e. Sets of Bowls incl. sets used as part of a carbonizing chain)	130		13	
Wool Carbonizing Machines (i.e. Sets of Acid and Neutralizing Bowls)	27		3	
SECTION 2 - CARDING, COMBING, ETC. -				
Carding Machines - Worsted	235		9	
Woollen	249		14	
Cotton - Flat	1,386		54	
Condensor	120		..	
Combing Machines - Wool - Noble	286		15	
French	144		26	
	Machines	No. of Heads	Machines	No. of Heads
Cotton	42	255	8	33
Tow to Top Coverting Machines	10	18	1	1
SECTION 3 - DRAWING, SPINNING, ETC. -				
Drawing Sets - Worsted - Open (Bradford)	67		15	
Continental	4		..	
Cone	13		1	
Auto leveller	64		2	
	Machines	No. of Heads	Machines	No. of Heads
Cotton	279	1,281	3	15
	Machines	No. of Spindles	Machines	No. of Spindles
Speed Frames, Cotton - Slubbing	74	8,526	..	..
Intermediate	85	10,884	..	40
Roving	61	9,657	3	556
Spinning Frames - Worsted - Mules	..	..	..	..
Ring	383	85,102	2	392
Cap	585	109,318	119	21,952
Flyer	79	15,048	3	552
Other	29	5,448	..	..
Woollen - Mules	249	97,580	12	4,182
Ring	137	24,250	20	4,536
Cotton - Ring	734	257,882	19	5,248
Twisting Frames, other than for Throwing -				
Ring	609	103,882	58	10,146
Cap	160	28,556	39	6,936
Other	90	7,768	6	1,034
Winding Frames, other than for Weft and				
Pirn Winding -				
Cone	1,170	31,051	83	892
Cheese	245	10,583	27	893
Hank	145	5,346	19	708
Other	115	4,205	16	1,020
SECTION 4 - YARN THROWING, ETC. -				
Twisting Frames for Throwing - Uptwisting	243	49,714	57	8,716
Down Twisting	131	12,660	23	2,504
Other	373	9,397	20	1,290
Bulking or Texturizing Machines	88	14,518	..	..

(a) Number in place and capable of operation at short notice.

(b) Includes Automatic Mixing and Blending Machines.

- continued

Description	Number Installed (a)			
	In Production at any time during June Quarter 1964		Idle during whole of June Quarter 1964	
	Machines	Spindles	Machines	Spindles
SECTION 5 - WEAVING, ETC. -				
Firm or Weft Winding Frames - Automatic	558	6,332	37	401
Non-Automatic	121	2,133	35	586
Warping Machines	Machines		Machines	
Sizing Machines	449		35	
Dry Beaming Machines	48		5	
	31		1	
Looms (incl. Weaving Machines) used principally for weaving -	Looms		Looms	
(i) Woollen and Wool Worsted Cloth -	Auto.	Non-Auto(b)	Auto.	Non-Auto(b)
Reed Space - up to but not incl. 60"		56		17
- 60" and over	1,428	2,216	206	453
(ii) Cotton and/or Man/Made Fibre Cloth -				
Reed Space - up to but not incl. 14"	377	642	98	55
- 14" and up to but not incl. 42"	427	71	22	20
- 42" and up to but not incl. 60"	2,207	293	76	50
- 60" and over	1,805	172	100	49
SECTION 6 - KNITTING -	Machines	No. of Heads	Machines	No. of Heads
Hosiery Machines -	117	1,971	111	2,046
Knitting - Fully Fashioned - Women's	Machines		Machines	
Circular (excl. Anklets) -	164		7	
Women's - Rib	2,866		314	
- Open Top	894		129	
Men's - Rib	100		74	
- Open Top	110		17	
Children's	28		8	
- Rib	205		10	
- Open Top	355		96	
Anklet - Women's	793		87	
Men's	676		459	
Children's	261		229	
Linking and/or Looping	624		111	
Seaming	2,506		518	
Knitted Fabric Machines -	2,164		560	
Warp Knitting Machines or Looms	827		488	
Flat Knitting Machines	Machines	No. of Heads	Machines	No. of Heads
Circular Knitting Machines - Rib	83	505	2	48
- Open Top				
SECTION 7 - DYEING, ETC. -	Open Vessels	Pressure Vessels	Open Vessels	Pressure Vessels
Dye Plant (c) for -				
Loose Stock or Fibres	66	34	2	..
Tops, Sliver or Roving	145	39	2	..
Yarn - Cones, Cheeses, etc.	21	71	..	..
Beam	13	4	..	..
Hank	186	19	6	..
Piece Goods	808	38	42	..
Garments and Hosiery (d)	282	11	15	1
SECTION 8 - FINISHING -	Machines		Machines	
Finishing - Scouring (excl. Dye Vessels)	211		6	
Milling	193		14	
Stentering (Single Layer)	59		5	
Tentering (Multi-Layer)	54		2	
Resin Baking or Polymerizing	23		3	
Mercerising - Yarn or Piece	8		2	
Calendering	120		8	
Cropping	91		11	
Raising or Brushing	176		16	
Blowing - Steam	76		4	
Pressing - Power	93		18	
Hand	99		19	
Pre-boarding	121		11	

(a) Number in place and capable of operation at short notice. (b) Excludes Hand Looms.
(c) Classified by predominant usage. (d) Other than plant for re-dyeing.

9. EXTERNAL TRADE. Details of the quantities and values of imports and exports of a number of items included in the group - Cotton Spinning and Weaving - are given for the years 1959-60 to 1963-64 in the following table.

TABLE 14. - IMPORTS OF COTTON, COTTON PIECE GOODS, YARN, ETC. : AUSTRALIA

TABLE 14. - IMPORTS OF COTTON, COTTON PIECE GOODS, YARN, ETC.						
Particulars	Unit of Quantity	Quantity				
		1959-60	1960-61	1961-62	1962-63	1963-64
Cotton - Raw	'000 lb.	41,519	41,842	37,735	42,543	56,663
Linters	" "	868	1,715	875	2,717	2,229
Waste	" "	13,556	9,923	11,822	11,099	10,264
Cotton Yarn - Mercerised	" "	707	609	286	510	529
Other	" "	7,200	8,458	5,124	4,261	2,300
Cotton Piece Goods, other than proofed -						
Canvas and Duck	'000 sq.yds.	7,011	5,693	(a)	(a)	(a)
Knitted or Lockstitched (tubular or otherwise)	'000 lb.	1,088	820	649	496	740
For Bag Making	'000 sq.yds.	9,401	9,648	6,405	6,278	8,618
Drills, Dungarees and Jeans	" " "	4,376	4,559	2,315	2,712	4,210
Other -						
Grey, unbleached	" " "	45,851	41,860	34,589	43,232	42,784
White, bleached	" " "	88,016	84,110	48,054	56,825	71,427
Printed, dyed or coloured n.e.i.	" " "	140,686	156,646	151,267	170,065	144,457
Particulars	Value	Value (EA'000 f.o.b. port of shipment)				
		1959-60	1960-61	1961-62	1962-63	1963-64
Cotton - Raw	5,172	5,477	5,272	5,786	7,797	
Linters	29	64	42	168	101	
Waste	712	467	593	510	477	
Cotton Yarn - Mercerised	479	461	208	333	345	
Other	2,754	3,439	1,990	1,573	840	
Cotton Piece Goods, other than proofed -						
Canvas and Duck	800	704	(a)	(a)	(a)	
Knitted or Lockstitched (tubular or otherwise)	332	302	202	144	208	
For Bag Making	519	591	366	344	486	
Drills, Dungarees and Jeans	686	747	367	403	557	
Other -						
Grey, unbleached	3,443	3,634	2,849	3,374	3,168	
White, bleached	10,174	10,148	5,394	5,889	7,683	
Printed, dyed or coloured n.e.i.	22,571	25,270	23,038	23,945	20,515	
All other	5,311	4,135	3,302	3,824	3,409	

(a) Not recorded separately.

TABLE 15. - EXPORTS OF COTTON GOODS : AUSTRALIA (a)

Particulars	Unit	1959-60	1960-61	1961-62	1962-63	1963-64
Cotton Yarns	'000 lb.	94	71	54	12	296
	EA'000	28	31	30	81	177
Cotton Piece Goods other than proofed -						
Canvas and Duck	'000 sq. yds.	67	91	(b)	(b)	(b)
	EA'000	23	21	(b)	(b)	(b)
Other	EA'000	249	501	380	416	487

(a) Values are expressed in EA'000 f.o.b. port of shipment.

(b) Not recorded separately.

K. M. ARCHER,

COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
CANBERRA, A.C.T. 27th SEP. 1965.

NOTE. - Inquiries concerning these statistics may be made in Canberra by telephoning 41971 Extension 52 or, in each State Capital, by telephoning the office of the Bureau of Census and Statistics.